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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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05/15/2001

Jong-Ho Kim

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BAKER & BOTTS
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NEW YORK, NY 10112

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,904

Applicant(s)

KIM, JONG-HO

Examiner

Steven HD Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antonio (US 6519456) in view of McNicol (USP 6363262).

Regarding claim 1, Antonio discloses a base transceiver station (Fig 1, Ref 12 and 14) in a mobile communication system comprising a BTS main processing unit for generating a control command to control one BTS (Fig 11, Ref 70 is a base station controller for generating a command to control BTS or Fig 3, ref 52 or Fig 5, ref 112 or Fig 6, ref 208) a multi-rate channel unit for processing an inter-channel communication, each channel having a different data rate (Fig 5, Ref 102 and Fig 7, ref 118); a signal transformation unit for transforming and modulation of an input signal which is received from the multi rate channel unit (Figs 5-6 discloses received signal from the multichannel “ref 246” is upconversion “ref 266” and modulating “ref 252”); and a wireless unit for wireless communication with a mobile station (Fig 5, Ref Antenna). However, Antonio fails to disclose radio frequency switches to dynamically select one of a plurality of band-pass filter to provide a selective bandwidth operation. In the same field of endeavor, McNicol discloses radio frequency switches to dynamically select one of a plurality of band-pass filter to provide a selective bandwidth operation based on the processor (Fig 8, Ref 260-270 are the switches for dynamically selecting one of band pass filters to provide a

bandwidth operation such as 1.75 to 3.75 Mhz such IS-95 CDMA and wideband CDMA, col. 11, lines 50-63).

Since, Williams suggests that a CDMA system can be implemented with a plurality of bandwidth such as 1.75 to 5 Mhz. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement a plurality of band pass filters to dynamically select a operation bandwidth as disclosed by McNicol's system into Antonio's system. The motivation would have been to reduce the cost of the system.

Regarding claim 2, Antonio discloses the wireless unit includes three transmitting frequency units and three receiving frequency units (Fig3, Ref 46).

Regarding claim 3, Antonio discloses upconversion and downconversion. However, Antonio fails to fully disclose the signal transformation unit includes analog up/down converter and digital up or down converter. However, the examiner takes an official notices that a method and advantage of using analog up/down converter and digital up or down converter are well known an expected in the art at the time of invention was made to implement these devices into Antonio's system in order to transform the signals.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Antonio and McNicol as applied to claim 1 above, and further in view of Button (USP 5872823).

Regarding claim 4, Antonio discloses the multi-rate channel unit includes a transmitting integrated circuit for processing an input signal, a receiving integrated circuit for processing an output signal (Fig 5, Ref 114 and Fig 7, Ref 126 are ASICs). However, Antonio and McNicol fail to disclose a HDLC controller for controlling a HDLC communication and a controlling software block for performing a pre-reserved program and transmit it to each device. In the

same field of endeavor, Sutton discloses the ASICs for processing the signals (Fig 2, Ref 218 and 220) into HDLC frame and a controller (Fig 2, Ref 105), See col. 6, lines 19-36 and controlling software block for performing a pre-reserved program and transmit it to each device (it is well known in the art to use a storage for storing the software and loading the software into the ASICs).

Since, Antonio suggests the use of FIRM for coupling to the router bus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement HDLC adapter between the channel processing module with the router using a HDLC adapter as disclosed by Sutton's system into the system of Antonio and McNicol. The motivation would have been to prevent corrupting the data or clock signals.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Agahi-Kesheh (USP 6466768) discloses a method and system for comprising a multi-band filter system for selecting a filter based on the bandwidth operation.

Brown (USP 6256511) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Przelomiec (USP 5915212) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Kent (USP 6173066) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Abdelgany (USP 6584090) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Thomsen (USP 6584304) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Yoshizawa (USP 5862461) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Ciccarelli (USP 6359940) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Futamura (USP 65354990) discloses a radio transceiver for comprising a plurality of filters for receiving a multi band signals.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Steven HD Nguyen', written in a cursive, stylized manner.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
December 19, 2005